U 1	rk Reduction Act of 1995, no persons are require	Application Number	10/718,237		
1 2 2004 R.D.		Filing Date	November	19, 2003	
	OF ATTORNEY OR	First Named Inventor	Rosenblum et al.  To be assigned  To be assigned  4992-1		
7 & AUTHORI	ZATION OF AGENT	Group Art Unit			
		Examiner Name			
		Attorney Docket Number			
I hereby appoin	t:				
Practition	ers at Customer Number	22896 ——	<b></b>	22896	
OR				PATENT TRADEMARK OFFIC	
	er(s) named below:				
_	Name	Regi	stration Nun	nber	
		1.09.			
		···-			
as my/ou	r attorney(s) or agent(s) to prose	ecute the application ident	tified above, a	and to transact all	
as my/ou business	r attorney(s) or agent(s) to prose in the United States Patent and	ecute the application ident Trademark Office connec	tified above, a	and to transact all	
business	in the United States Patent and	Trademark Office connec	ted therewith	and to transact all	
business Please change th	in the United States Patent and he correspondence address for the	Trademark Office connec	ted therewith	and to transact all	
business Please change th	in the United States Patent and	Trademark Office connec	ted therewith	and to transact all	
business Please change th The above	in the United States Patent and he correspondence address for the	Trademark Office connec	ted therewith	and to transact all	
business Please change th The above	in the United States Patent and he correspondence address for the	Trademark Office connec	ted therewith	and to transact all	
business Please change th The above	in the United States Patent and the correspondence address for the e-mentioned Customer Number.	Trademark Office connec	ted therewith	and to transact all	
business  Please change th  The above  OR  Firm or  Individual Na	in the United States Patent and the correspondence address for the e-mentioned Customer Number.	Trademark Office connec	ted therewith	and to transact all	
business Please change th The above  OR Firm or Individual Na Address	in the United States Patent and the correspondence address for the e-mentioned Customer Number.	Trademark Office connec	ted therewith	and to transact all	
business  Please change th  The above  OR  Firm or Individual Na  Address  City	in the United States Patent and the correspondence address for the e-mentioned Customer Number.	Trademark Office connection above-identified application	ted therewith	).	
business  Please change th  The above  OR  Firm or Individual Nath Address  City  Country	in the United States Patent and the correspondence address for the e-mentioned Customer Number.	Trademark Office connection above-identified application	ted therewith	).	
business  Please change th  The above  OR  Firm or Individual Nath Address  City  Country	in the United States Patent and the correspondence address for the e-mentioned Customer Number.	Trademark Office connectine above-identified applications and the state	ted therewith	).	
business Please change the The above  OR Firm or Individual Nata Address City Country Telephone I am the:	in the United States Patent and the correspondence address for the mentioned Customer Number.	Trademark Office connectine above-identified applications and the state	ted therewith	).	
business Please change the The above  OR Firm or Individual Nata Address City Country Telephone I am the:	in the United States Patent and the correspondence address for the e-mentioned Customer Number.	Trademark Office connectine above-identified applications and the state	ted therewith	).	
business Please change the The above  OR Firm or Individual National Nation	in the United States Patent and the correspondence address for the mentioned Customer Number.  Imme  Applicant/Inventor.	Trademark Office connection above-identified applications above.  State	eted therewith	).	
business Please change th The above  OR Firm or Individual Na Address City Country Telephone I am the:	in the United States Patent and the correspondence address for the mentioned Customer Number.  Applicant/Inventor.  Assignee of record of the entire in	Trademark Office connection above-identified applications above.  State  Fax  hterest. See 37 CFR 3.71	eted therewith	).	
business Please change th The above  OR Firm or Individual Na Address City Country Telephone I am the:	Applicant/Inventor.  Assignee of record of the entire in Statement under 37 CFR 3.73(b)	Trademark Office connection above-identified applications application of the state State    State   Fax     State   State   Fax     State   State   Fax     State   State   State     State   State     State   State   State     State   State   State     State   St	eted therewith	).	
business Please change th The above  OR Firm or Individual Na Address City Country Telephone I am the:	Applicant/Inventor.  Assignee of record of the entire in Statement under 37 CFR 3.73(b)	Trademark Office connection above-identified applications above.  State  Fax  hterest. See 37 CFR 3.71	eted therewith	).	

\* Total of \_

forms are submitted.

PTO/SB/81 (10-00)

Approved for use through 10/31/2002. OMB 0651-0035

Please type a plus sign (+) inside this box > +

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Panerwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

MN 15 TO E STATEMENT UNDER 37 CFR 3.73(b)
Applicant/Ratent Owner: Rosenblum, Holden, Lou, Koehler, Ramachandra
Application No./Patent No.: 10/718,237 Filed/Issue Date: November 19, 2003
Entitled: POLYNUCLEOTIDE SEQUENCE DETECTION ASSAYS AND ANALYSIS
Applera Corporation , a Corporation , (Name of Assignee) , (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)
states that it is:
1.  the assignee of the entire right, title and interest; or
2. an assignee of less than the entire right, title and interest.  The extent (by, percentage) of its ownership interest is%
In the patent application/patent identified above by virtue of either:
<ul> <li>A. [X] An assignment from the inventor(s) of the patent application/patent identified above was filed Through EPAS.</li> <li>OR</li> </ul>
B. [ ] A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:
1. From: To:  The document recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.
To:     The document recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.
3. From: To:  The document recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.  [ ] Additional documents in the chain of title are listed on a supplemental sheet.
[ ] Copies of assignments or other documents in the chain of title are attached. [NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]
The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.
November 10, 2004  Date  Typed or printed name  Signature  Patent Attorney  Title

## LIMITED AUTHORIZATION TO ACT ON BEHALF OF ASSIGNEE REGARDING CERTAIN PATENT AND TRADEMARK MATTERS EFFECTIVE THROUGH: December 31, 2006

I, Paul D. Grossman, as Assistant Secretary of Applera Corporation ("Applera"), hereby authorize the following patent attorneys:

Scott R. Bortner, Reg. No. 34,298 John W. Burns, Reg. No. 43,520 Jeffery D. Frazier, Reg. No. 34,601 Brian D. Gildea, Reg. No. 39,995 Andrew T. Karnakis, Reg. No. 27,909 Phil N. Makrogiannis, Reg. No. 47,766 Vincent M. Powers, Reg. No. 36,246

(1) to act on behalf of Applera, with regard to any matters before the United States Patent and Trademark Office, any foreign patent or trademark offices, and any international patent or trademark entities, (2) to execute power of attorney documents on behalf of Applera, to appoint and/or establish any attorneys, agents, and/or law firms to act on behalf of Applera, in any foreign or international patent or trademark applications filed with any foreign and/or international patent or trademark offices, and (3) to execute assignment and ownership documents on behalf of Applera, with regard to any matters before the United States Patent and Trademark Office, any foreign patent or trademark offices, and any international patent or trademark offices.

Paul D. Grossman Assistant Secretary, Data

Applera Corporation

State of California	)
	) ss
County of San Mateo	)

On Much 26, 2004 before me, Patti Q Sclan, personally appeared Paul D. Grossman, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity(ies), and that by his signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

PATT D. SELAN
Commission # 1393279
Notary Public - California
San Mateo County
My Comm. Expires Feb 9, 2007

Notary Public

COPY

Form PTO-1595 (Rev. 03/01) OMB No. 0651-0027 (ex. 5/31/2002)

### RECORDATION FORM COVER SHEET PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

OMB No. 0651-0027 (exp. 5/81/2902)	Case No: 4992-1	
To the Honorable Commissioner of Patents and Trademarks: Pl	ease record the attached original document(s) or copy(ies) thereof.	
1. Name of conveying party(ies):  Barnett Rosenblum, David P. Holden, Yuandan Lou, Ryan T. Koehler, Srinivasa Ramachandra  Additional name(s) of conveying party(ies) attached? □Yes ☒ No  3. Nature of conveyance:  X Assignment Merger Security Agreement Change of Name Other:  Execution Date:10/7/04, 10/6/04, 10/12/04,	2. Name and address of receiving party(ies):  Name: Applera Corporation  Internal Address: Applied Biosystems Group  Street Address: 850 Lincoln Centre Drive  City: Foster City State: CA ZIP: 94404-1128  Additional name(s) & address(es) attached? ☐ Yes ☒ No	
4. Application number(s) or patent number(s):  If this document is being filed together with a new application, the A. Patent Application No.(s)  10/718,237  Additional numbers atta	B. Patent No.(s)	
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1	
Hugh J. Pasika Applied Biosystems Group 850 Lincoln Centre Drive Foster City, California 94404-1128 Telephone: 650-570-6667	<ul> <li>7. Total fee (37 CFR 3.41): \$ 40.00  _ Enclosed</li> <li>X Authorized to be charged to deposit account</li> <li>X Authorization to charge additional fees.</li> <li>8. Deposit account number:</li> </ul>	
	O1-2213  (Attached duplicate copy of this page if paying by deposit account)	
DO NOT USE THIS SPACE		
copy is a true copy of the original document.  Hugh J. Pasika, Reg. No. 54,362	Signature  Date  heet, attachments and document:	

#### **ASSIGNMENT**

For good and valuable consideration paid to us, receipt of which is hereby acknowledged, we each:

Barnett Rosenblum, 1521 Estelle Avenue, San Jose, California 95118, a US citizen, David P. Holden, 750 Gonzalez Drive, Apt. 11-M, San Francisco, California 94132, a US citizen, Yuandan Lou, 10210 Vicksburg Court, Cupertino, California 95014, citizen of CHINA, Ryan T. Koehler, 3175 Cromwell Place, Hayward, California 94542, a US citizen Srinivasa Ramachandra, 532 Crystal Springs Court, Danville, California 94506, a US citizen

do hereby sell, assign, and set over unto

#### **Applera Corporation**

a Delaware corporation having a place of business at 850 Lincoln Centre Drive, Foster City, California 94404 (hereinafter "Assignee"), its successors, legal representatives and assigns, each of our entire right, title, and interest in and to any and all of our inventions and discoveries entitled:

#### POLYNUCLEOTIDE SEQUENCE DETECTION ASSAYS AND ANALYSIS

as described and/or claimed in our United States patent application, having an oath or declaration fully executed by us and, subsequently assigned Serial Number \_\_\_\_10/718,237 \_\_ and filing date of November 19, 2003 by the United States Patent and Trademark Office; in and to the right to file patent applications in the name of Assignee, its designee, in all of our names, or in any other name or names, on the aforesaid inventions and discoveries in any or all countries of the world, together with all rights of priority in the aforesaid countries deriving from the above-identified United States patent application under the International Convention for the Protection of Industrial Property, under the Inter-American Convention relating to Inventions, Patents, Designs and Industrial Models, and under any other international arrangement to which the United States now is or hereafter becomes a signatory; in and to any and all applications for Letters Patent, and any and all Letters Patent that issue on any of the aforesaid applications, and in and to any and all divisions, continuations, and continuations-in-part of any and all of said applications, and any and all reissues, renewals and extensions of any of said Letters Patent, such that the same right, title and interest to be held and enjoyed by Assignee, its successors, assigns or other legal representatives, to the full ends of the terms for which all Letters Patent therefor may be granted, shall be as full and complete as that that would have been held and enjoyed by us if this assignment and sale had not been made.

We further hereby covenant and agree, for the same consideration, whenever counsel of Assignee, or the counsel of its successors, legal representatives and assigns, shall advise that any proceeding in connection with said inventions, or said application for Letters Patent, or any proceeding in connection with said invention, or said application for Letters Patent, including interference proceedings, is lawful and desirable, or that any division, continuation, or continuation-in-part of any application for Letters Patent, or any reissue or extension of any Letters Patent, to be obtained thereon, is lawful and desirable to sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of Letters Patent for said invention, without charge to said Assignee, its successors, legal representatives and assigns, but at the cost and expense of said Assignee, its successors, legal representatives and assigns.

We hereby authorize Assignee to insert in this instrument the serial number and filing date of said application when officially notified thereof.

• DO NOT RECORD •

**Barnett Rosenblum** Name of inventor: State of California

Remit Kleselle Date: 10/7/04.

County of San Mateo )

on OCT. 7th On OCT. 7th 2004 before me, D. A. MOJARRO, no tary public, personally appeared Burnett Rosenblum, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature on the instrument the person(s), or the entity upon behalf of which the person(s), acted, executed the instrument.

WITNESS my hand and official seal.

## • DO NOT RECORD •

Name of inventor: David P. Holden Inventor's signature	Date: 10-7-04
State of California ) ) ss.	
On Oct . 7th , 2004 before me, I personally appeared David P. Halden	D. A. MOJARRO, notary public personally known to me (or proved to me on the basis
of satisfactory evidence) to be the person whose acknowledged to me that he/she/they executed the by his/her/their signature on the instrument the person whose acknowledged to me that he/she/they executed the by his/her/their signature on the instrument the person whose acknowledged to me that he/she/they executed the same acknowledged to the same acknowledged the same ackn	e name is subscribed to the within instrument and same in his/her/their-authorized capacity(ies), and that son(s), or the entity upon behalf of which the person(s)
witness my hand and official seal.	
D. A. MOJARRO Commission # 1440703 Notary Public - California San Mateo County My Comm. Expires Sep 22, 26	Notary Public
D. A. MOJARRO Commission # 1440703	

# COPY • DO MOT RECORD •

San Mateo County
My Comm. Expires Sep 22, 2007

Name of inventor:	Yuandan Lou
Inventor's signature	d-11911. Date: 10/06/2004
·	
State of California	) ) ss.
County of San Mateo	
of satisfactory evide	, 2004 before me, D. A. MOJARRO, Notary Public Nandan Low, personally known to me (or proved to me on the basis nce) to be the person whose name is subscribed to the within instrument and that he/she/they executed the same in his/her/their authorized capacity(ies), and that ture on the instrument the person(s), or the entity upon behalf of which the person(s) instrument.
WITNESS my hand a	and official seal.
Note Note	D. A. MOJARRO mmission # 1440703 any Public - California ton Mateo County

COPY
• DO NOT RECORD •

Name of inventor:	Ryan 1. Koenier			<i>f i</i>	
Inventor's signature _	lyn Koch		Date:	10/12/0	<u>)4</u> .
State of California	)	•			
	) ss.				
County of San Mateo	· )				
of satisfactory evides acknowledged to me to	Ryan T. Kowhled ence) to be the person we that he/she/they executed to ture on the instrument the instrument.	hose name is the same in hi	s subscribe s/ <del>her</del> /their	ed to the within authorized capac	instrument and city(ies), and that
WITNESS my hand a	and official seal.			•	
No.	Mil.A T. KASAN ommission # 1505699 tary Public - California			. Kasa~ tary Public	<u>,,,,,</u>
	San Mateo County 7 omm. Expires Aug 3, 2008		1101	<b>, -</b>	

Name of inventor: Srinivasa Ramachandra
Inventor's signature B Date: 10/7/2004
State of California )
) ss.
County of San Mateo )
on Oct. 7th, 2004 before me, D.A. Mojarro, notary public, personally appeared Srinivasa Ramachandra personally known to me (or proved to me on the basis
personally appeared Srinivasa Kamachardra personally known to me (or proved to me on the basis
of satisfactory evidence) to be the person whose name is subscribed to the within instrument and
acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that
by his/her/their signature on the instrument the person(s), or the entity upon behalf of which the person(s)
•
acted, executed the instrument.
WITNESS my hand and official seal.

D. A. MOJARRO

Commission # 1440703 Notary Public - California San Mateo County My Comm. Expires Sep 22, 2007

Notary Public

Cano

• DO NOT RECORD •